

(12) United States Patent

Bredoire et al.

(54) PLUG ASSEMBLY, ROLLING BEARING COMPRISING SUCH PLUG ASSEMBLY AND MACHINE COMPRISING SUCH ROLLING **BEARING**

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See application file for complete search history.

(56)References Cited

U.S. PATENT DOCUMENTS

3,148,922 A 9/1964 Roessler, Jr. 3,275,391 A * 9/1966 Blais F16C 19/362 384/447

(Continued)

FOREIGN PATENT DOCUMENTS

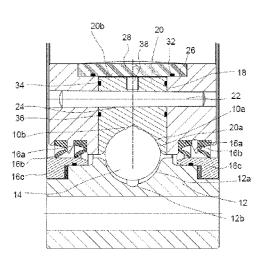
DE 19837579 A1 2/2000 7/1990 EP 0375938 A1 (Continued)

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ABSTRACT (57)

A plug assembly for use in a rolling bearing comprising at least a first ring, at least one second ring, and at least one row of rolling elements arranged between the rings. The first ring is provided with an opening for inserting rolling elements into a space between raceways or for taking rolling elements out of the space between the raceways for assembly and maintenance. The plug assembly comprises a plug configured to close the opening when the bearing is operating. The plug includes an inner end face facing the rolling elements and an outer end face opposite to the inner end face. The bearing can further comprise a protective cap shielding the outer end face of the plug from a corrosive environment of the bearing.

11 Claims, 2 Drawing Sheets



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